

Student Sheet

WATTAGE RATINGS

Check four different appliances for their wattage ratings. Using the conversion to kilowatt-hours(kWh) calculate the electricity usage for each appliance.

Appliance: _____

_____ watts/1000 watts/kWh per hour of operation = _____ kWh

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ELECTRICAL APPLIANCE ENERGY TABLE

Appliance Wattage Rating	Kilowatt-hours of Electricity Used per Hour	Ounces of Oil Burned per Hour	Ounces of Coal Burned per Hour
10	0.01	0.01	0.13
25	0.025	0.025	0.33
40	0.04	0.4	0.5
60	0.06	0.6	0.8
100	0.1	1	1.33
150	0.15	1.5	2
200	0.2	2	2.66
300	0.3	3	4
500	0.5	5	6.66
750	0.75	7.5	10
1000	1	10	13.33
1500	1.5	15	20
2000	2	20	26.66
5000	5	50	66.66
10000	10	100	133.33

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APPLIANCE ENERGY USE

Think about burning ten 100-watt light bulbs for one hour. That's the amount of electricity equivalent to one kilowatt-hour. Just as you pay for gallons of gas, quarts of milk, and loaves of bread, you pay for kilowatt-hours of electricity.

The chart below shows the average number of kilowatt-hours of electricity that various appliances use.* If you are interested in how much it costs to operate one of these appliances for a month or a year contact your local utilities company.

	Average kWh Used	
	<u>Annually</u>	<u>Average kWh Used Monthly</u>
<u>Kitchen Appliances</u>		
Range w/self-cleaning oven	1224	102
Range w/oven	1152	96
Microwave oven	300	25
Frying pan	190	16
Coffee maker	110	9
Toaster	40	3
Mixer	10	1
Food disposer	30	3
Dishwasher	1560**	130
	2160	180
Refrigerator/freezer 16-25 cu ft side-by-side model, automatic defrost		
Refrigerator/freezer 14 cu ft automatic defrost	1800	150
Refrigerator/freezer 14 cu ft manual defrost	1200	100
Refrigerator/freezer 17 cu ft, 2-door, high efficiency, automatic defrost	1200	100
Freezer, 15 cu ft automatic defrost	1200	150
Freezer, 15 cu ft manual defrost	1800	100
<u>Laundry Appliances</u>		
Clothes dryer	1000	83
Clothes washer	624**	52
Hand iron	150	13
<u>Other Appliances</u>		
Quick recovery water heater	5400***	450
Vacuum cleaner	50	4
Clock	18	2
Toothbrush	0.5	0.04